

IOWA STORED ENERGY PLANT Status Report

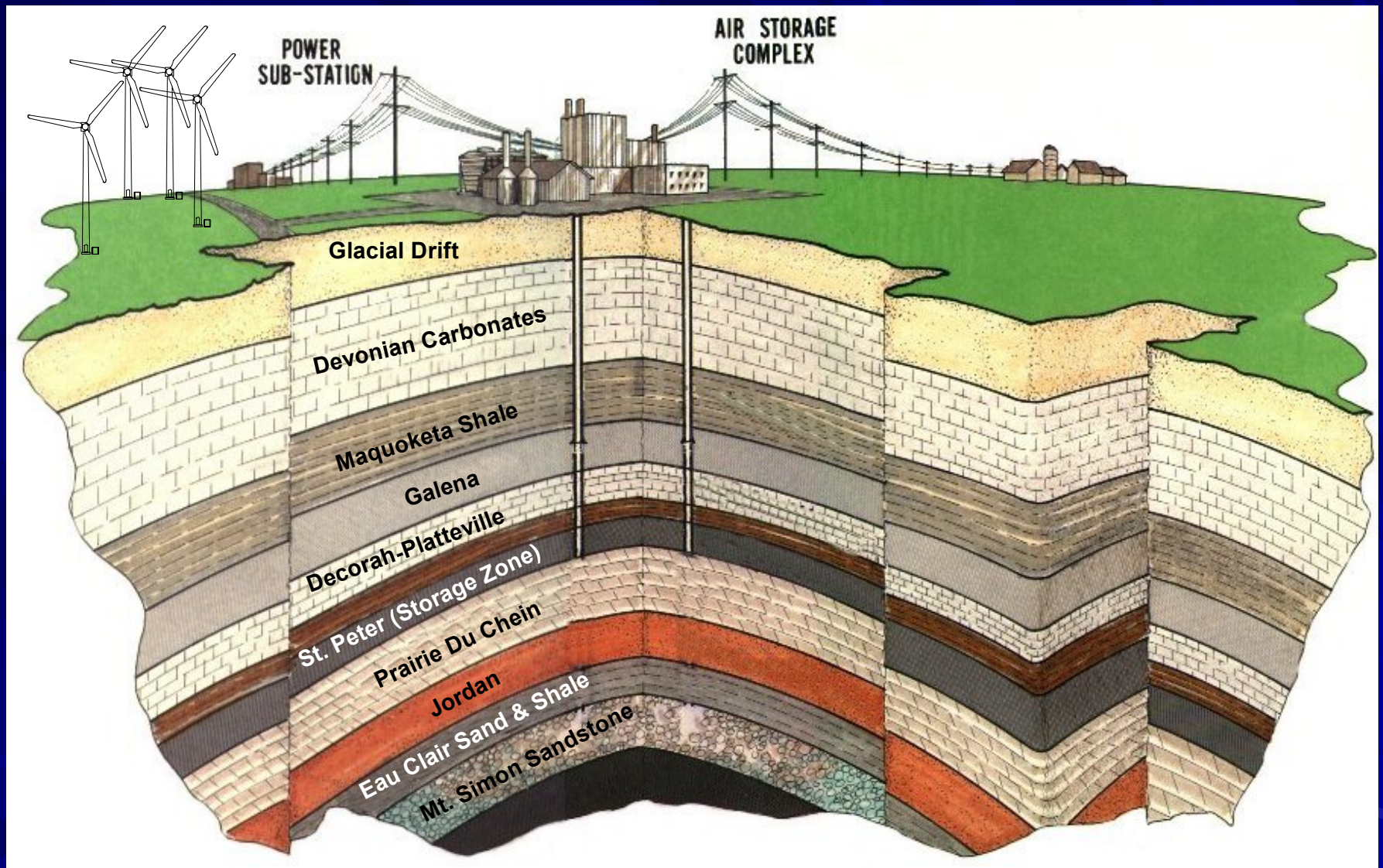
California Energy Commission

February 24, 2005

Kent Holst, Development Director

Origins of ISEP

- 136 Municipal Electric Utilities in Iowa.
- Study of municipal resource needs.
- Compressed Air Energy System (CAES) and Wind (857MW!)



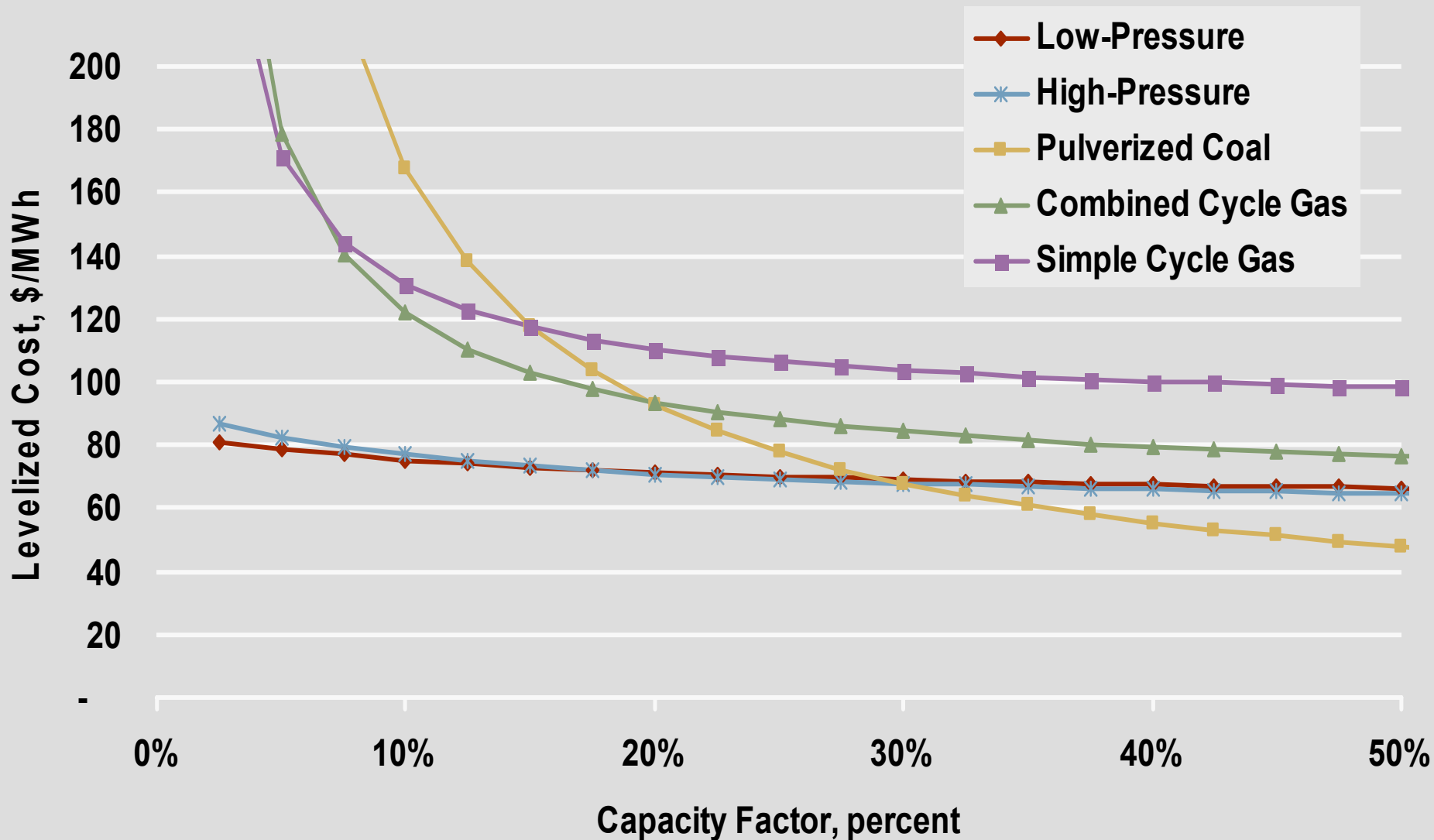
Compressed Air Energy Storage at Iowa Site

Validating Studies

- Burns & McDonnell Conceptual Design and Cost Estimate.
- Independent Cost Estimate by ES & GS.
- Storage rights analysis by Meridian Energy Corp.
- Independent review of geologic data by Fairchild & Wells.
- Black & Veatch Economic Analysis

What have we learned?

- 1. \$870/KW for CAES, \$1150/KW for wind.
- 2. We have issues with leases.
- 3. Geology is not as favorable as 1st presented.
- 4. The economics look good.



■ Comparison of Levelized Cost of Production Between Generation Technologies.

How has it all been paid for?

- Hundreds of hours have been donated.
- \$750,000 has been invested by Municipals
- US DOE Energy Storage Program Funding:
 - FY 2004 - \$136,000
 - FY 2005 - \$1,200,000
 - FY 2006 asking - \$2,500,000

Questions?